

NIST Standards-Related Programs

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Overview

NIST

- Provides technical underpinning for documentary standards
 - In support of global trade
 - In support of the commercial measurement system
- Provides policy leadership for standards activities
 - With the private sector
 - For government agencies
- Promotes global acceptance of standards
- Promotes efficiency in standards and conformity assessment programs

NIST provides sound technical underpinning for documentary standards ...

- By participating as measurement experts in the development of test methods; product, system, and process specifications; etc.
- By participating in data collection efforts in support of the development of test methods
- By providing measurement standards needed to calibrate instruments used in test methods
 - E.g., ASTM standards reference ~800 NIST Standard Reference Materials

NIST Participation in Documentary Standards Activities

- 401 staff members, more than 25% of the technical staff, participate in ANSI and 97 voluntary standards organizations:
 - **ASTM International - 149**
 - **International Organization for Standardization - 63**
 - **IEEE – 42**
 - **ANSI - 39**
 - **ASME International - 32**
 - **International Electrotechnical Commission – 16**
 - **IETF - 12**
 - **ASHRAE - 11**
 - **SEMI (Semiconductor Equipment and Materials Institute) - 11**
- NIST staff hold 988 committee memberships; 157 are leadership positions

NIST Support for U.S. Commercial Measurement System

- Develop standards and test procedures for weights and measures
 - Harmonized national and international standards
 - Input to National Conference on Weights and Measures (NCWM); International Organization of Legal Metrology (OIML)
- Technical guidance to industry, retailers, and regulatory officials
 - Training for weights and measures officials in device inspection, pre-packaged goods, laboratory metrology, price scanner inspections, and weights and measures administration
 - Laboratory metrology training and support
 - Mass metrology laboratory training facility

International Legal Metrology

- Represent the U.S., on behalf of State Department, as Technical Representative to the International Organization of Legal Metrology (OIML)
 - **Secretariat of 15 OIML Technical Committees and Subcommittees**
 - **Led development of the OIML Mutual Acceptance Arrangement for Type Evaluation**
- Participate in the Asia-Pacific Legal Metrology Forum (APLMF) and the Sistema Interamericana Metrologia (SIM)

NIST Standards Policy Leadership

- Congress has directed NIST to coordinate with Federal agencies to:
 - use voluntary consensus standards to the extent practicable
 - report development of agency-unique standards
 - participate in the development of voluntary consensus standards relevant to their needs
 - reduce overlap and duplication, and increase efficiency, of conformity assessment activities
- NIST staff serve on standards-related policy committees
 - ANSI, ASTM and IEEE Boards of Directors
 - ASME: Council on Codes and Standards
 - ISO: Vice President for Policy
- NIST staff co-chair ANSI standards panels – for homeland security and nanotechnology

National Technology Transfer and Advancement Act: NIST Goals for 2011

- **Every relevant department, agency, and independent commission has a strategic management standards policy and implementation plan in place to ensure that standards are integral to its decision-making process.**
- **Agencies increase their participation in voluntary consensus standards development efforts and, as a result, increase their effectiveness in meeting national goals.**
- **Each agency actively coordinates activities related to evaluating conformance to regulatory requirements to eliminate overlap and duplication and to minimize bureaucratic burdens on the private sector.**
- **State and local needs benefit from – and are integrated into the practices of the federal agencies so that the development of voluntary consensus standards better address their technology needs.**

NIST Role in Promoting Global Acceptance of Standards

NIST

- Partners with other government agencies, industry, ANSI and its members to conduct workshops for foreign officials
 - Chairs standing standards dialogues with key foreign counterparts
 - Serves as technical liaison for Department of Commerce standards experts stationed in U.S. Embassies and Missions
- ⇒ Expanded network of foreign officials knowledgeable about the U.S. system; wider use and acceptance of globally recognized standards by foreign governments

Education about Standardization

- **Is important to NIST:**
 - **For our own staff, so that they can be more informed participants in the standards process**
 - **For NIST and other agency staff, so that they can be more informed users of standards**
 - **For our programs targeted at foreign government officials**
 - **For our customers, both public and private sector**